V. TRANSPORTATION AND CIRCULATION ELEMENT

A. PURPOSE

The Transportation and Circulation Element of the Foresthill Divide Community Plan is intended to serve the following purposes:

- Establish goals and policies to guide the development and operation of the transportation system
- Describe existing transportation conditions and circulation features within the Plan area
- Describe future transportation conditions resulting from development of the Plan area in accordance with proposed land uses
- Identify improvements to, and development of, the transportation system to ensure the provision of a safe, efficient and multi-modal transportation system consistent with the established goals and policies, and
- Identify a method for financing the identified transportation needs in the Plan area.

The Circulation Element is one of the seven mandatory General Plan elements. All of the topics required to be addressed in a Circulation Element by State law are covered in the Placer County General Plan. The purpose of the Transportation and Circulation Element of the Foresthill Divide Community Plan is to address topics specific to the Plan area, which are of particular interest to residents of the Foresthill Divide.

The future circulation system is also presented in map form, as Figure V-1 of the Foresthill Divide Community Plan.

All highways and roadways serving the Plan area are two-lane rural facilities. Existing traffic volumes are low to very low, and all roads operate at LOS "C" or better. All of the major roadways intersect with Foresthill Road, which serves as the backbone of the roadway system in the Plan area. The need to maintain an acceptable LOS "C" on Foresthill Road is a major constraint to future development in the Plan area. The dependence on this roadway also raises concerns regarding emergency response and the potential need to evacuate the Plan area.

Because of the rural low density nature, topography and size of the Plan area, bicycle and pedestrian facilities and transit service are limited. However, many trails are located in the Plan

area. This trail system offers the potential for future extensions and linkages to better serve Plan area residents as well as tourists/recreationists.

B. EXISTING TRANSPORTATION SYSTEM

An inventory and evaluation of the operating characteristics of the existing circulation system within the Foresthill Divide Community Plan area is the initial task required to develop a comprehensive plan to guide transportation planning in the Plan area in the future. To understand existing travel characteristics and conditions, all major aspects of transportation in the Plan area have been inventoried and analyzed. The following sections discuss existing roadway functions, traffic volumes, and traffic Level of Service, as well as transit, rail service, airports and bicycle routes.

STREETS AND HIGHWAYS

Functional Classification

The Plan area is served by a system of County roads. The existing roadways in the Plan area are primarily comprised of two-lane rural facilities reflecting the rural nature of the county. A description of some of the study area roadways is presented below. Daily traffic counts were conducted during May 2000, and these counts are presented in the roadway descriptions.

The existing roadway system and current traffic volumes for the Plan area are illustrated in Figure V-2.

Foresthill Road. Foresthill Road is a two-lane rural roadway. This roadway provides the principal link between Auburn and Foresthill. This road also serves as the main route along the Divide, and continues easterly to Soda Springs.

Foresthill Road currently carries 6,650 average daily traffic (ADT) east of the two-lane Foresthill bridge of the North Fork of the American River. East of Happy Pines Drive, daily traffic volumes on Foresthill Road reach 4,876 ADT. West of Owl Hill Court, traffic volumes on Foresthill Road rise to 5,312 ADT. East of the community of Foresthill, daily traffic volumes on Foresthill Road drop significantly. West of Michigan Bluff Road, Foresthill Road currently carries 796 ADT, with daily traffic volumes on Foresthill Road dropping to 481 ADT east of Michigan Bluff Road.

Portions of Foresthill Road were reconstructed in 2000. This 2.4-mile stretch of road was the last of three phases to be completed under a Federal Highway Administration contract. This project added passing lanes and widened many of the stretches of Foresthill Road between Auburn and Foresthill.

Yankee Jim's Road. Yankee Jim's Road is a narrow two-lane roadway. This roadway connects the community of Foresthill to Canyon Way just south of Colfax. Currently, Yankee Jim's Road carries 186 ADT north of Race Track Street.

Spring Garden Road. Spring Garden Road is a two-lane roadway. This roadway extends between Foresthill Road in the south and Yankee Jim's Road in the north. Currently, Spring Garden Road carries 624 ADT.

McKeon-Ponderosa Way. McKeon-Ponderosa Way is a two-lane roadway. This roadway originates at Foresthill Road in the north. Extending to the south, McKeon-Ponderosa Way provides access to the west end of the Todd's Valley area before winding further south toward the Middle Fork American River Canyon. Currently, McKeon-Ponderosa Way carries 1,495 ADT just south of Foresthill Road.

Happy Pines Drive. Happy Pines Drive is a two-lane roadway that provides access to Todd's Valley. Originating at Foresthill Road, Happy Pines Drive extends to the south through Todd's Valley before terminating at Green Leaf Lane just south of Todd Creek. Currently, Happy Pines Drive carries 1,293 ADT.

Todd Valley Road. Todd Valley Road is also a two-lane roadway. Within the Todd's Valley area, Todd Valley Road originates at Foresthill Road. Extending to the south, Todd Valley Road loops to the east and then back to the north to terminate at Foresthill Road. Currently, Todd Valley Road carries 2,663 ADT on the eastern loop just south of Foresthill Road. The daily traffic on the west portion of the loop is substantially lower, with daily traffic volumes of 319 ADT just south of Foresthill Road.

Mosquito Ridge Road. Mosquito Ridge Road is a two-lane roadway in the vicinity of the community of Foresthill. Originating at Foresthill Road, Mosquito Ridge Road winds to the southeast into the Tahoe National Forest. Mosquito Ridge Road currently carries 230 ADT just east of Foresthill Road.

Race Track Street. Race Track Street is a two-lane roadway. Originating at Foresthill Road in the west, Race Track Street parallels the north side of Foresthill Road before terminating in the east at Yankee Jim's Road. Currently, Race Track Street carries 901 ADT east of Foresthill Road.

Main Street. Main Street is a two-lane roadway that parallels the south side of Foresthill Road within the community of Foresthill. Extending from Foresthill Road in the west, Main Street provides access to the local businesses before connecting to Foresthill Road at the east end of town. Currently, Main Street carries 691 ADT just east of Foresthill Road.

Michigan Bluff Road. Michigan Bluff Road is a two-lane roadway that provides access from the community of Michigan Bluff north to Foresthill Road. Michigan Bluff Road currently carries 200 ADT south of Foresthill Road.

North Fork Ponderosa Way. North Fork Ponderosa Way is a two-lane facility that originates at Foresthill Road west of Todd's Valley. Extending to the north, North Fork Ponderosa Way winds its way toward Weimar.

Scenic Corridors

Because of the special scenic qualities of certain areas in the Plan area, those roads traversing these areas are recommended to be protected by special measures to enhance scenic view sheds.

- Foresthill Road within the Plan area and to Robinson Flat.
- Mosquito Ridge Road to Robinson Flat Road.
- Robinson Flat Road from Mosquito Ridge Road to Foresthill Road.

ROADWAY OPERATIONS

Level of Service Methodology

To assess the quality of existing traffic conditions in the Plan area, Levels of Service have been identified for arterial and collector facilities. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening traffic conditions, is assigned to an intersection or roadway segment. Current evaluation methodology is dependent upon the physical characteristics of the roadway segment or intersection, and can additionally be categorized with respect to "urban" or "rural" conditions. Table 5-1 presents a description of the Levels of Service associated with two-lane rural highways.

The identified thresholds reflect information contained in the Placer County General Plan, as well as new information that reflects the character of Foresthill Road. Specifically, the effects of climbing lanes on average travel speed and resulting Levels of Service have been incorporated into these thresholds. Climbing lanes have the effect of raising Level of Service thresholds, although the overall capacity of the road remains constrained by the two lane sections.

Table 5-I Two-Lane Rural Highway Level of Service Descriptions

LOS	Description
A	Free Flow: Almost no platoons of three or more cars. Driver delayed no more than 30 percent by slow moving vehicles.
B	Free Flow: Some platoons form. Driver delayed no more than 45 percent by slow moving vehicles.
C	Stable Flow: Noticeable increase in platoon formation and size. Drivers delayed more than 60 percent by slow moving vehicles.
D	Approaching Unstable Flow: Heavy platooning. Passing becomes difficult. Drivers delayed no more than 75 percent by slow moving vehicles.
E	Unstable Flow: Intense platooning. Passing is virtually impossible. Drivers delayed more than 75 percent by slow moving vehicles.
F	Forced Flow: Queues form behind breakdown points.

Source: Highway Capacity Manual, Transportation Research Board, 1985 and kdANDERSON Transportation Engineers, 2002.

The Level of Service characteristics of study roadways in the Plan area will vary in relation to terrain and passing opportunities. In order to utilize appropriate evaluation criteria, the Plan area roadway characteristics need to be determined. Toward this end, the roadways in the Plan area were classified based on the individual roadway characteristics. Roadways within the rural area of the county were either classified as "mountainous" if they had steep grades or as "rolling." The "rolling" classification was further disaggregated based on the presence of passing/climbing lanes. The passing/climbing lane percentages were calculated based on field data. Roadways in the Plan area that comprise the local street system were classified as arterials based on operations.

Table 5-2 presents the evaluation criteria that were used to determine Level of Service operations on each of these roadways. The daily capacity thresholds account for roadway operating characteristics such as directionality, percentage of trucks and recreational vehicles, and the percentage of passing lanes. As shown, the presence of passing lanes on a two-lane roadway can substantially increase the Level of Service thresholds, as these passing lanes provide the opportunity to travel around slower moving trucks and vehicles. While these passing lanes do provide an increasing benefit as the percentage of passing lanes increases, there is a limit. Roadways with higher passing percentages reach this "capacity limit" but still provide a good Level of Service. As shown under the two-lane rolling criteria with 71% passing lanes, the maximum daily traffic threshold on this section increases quickly to a point that reaches the ultimate capacity of the roadway at LOS "C" operations. Once the maximum capacity of the roadway is reached, the two-lane section becomes the constraint and no more vehicles can physically be delivered by the roadway system, even with an increase in the percentage of passing lanes. Therefore, while motorists experience unimpeded operations on the two-lane uphill sections, the overall roadway capacity is still constrained by the two-lane sections.

Table 5-2 Evaluation Criteria for Level of Service

Roadway Capacity Class	Maximum Daily Traffic Volume Level of Service				
	A	B	C	D	E
1. Rural 2-lane – Rolling w/o Passing Lane	1,060	3,400	6,400	9,780	18,540
2. Rural 2-lane – Rolling w/39% Climbing Lanes	1,060	4,520	10,710	14,190	18,540
3. Rural 2-lane – Rolling w/40% Climbing Lanes	1,060	4,600	10,880	14,430	18,540
3. Rural 2-lane – Rolling w/43% Climbing Lanes	1,060	4,860	11,450	15,170	18,540
3. Rural 2-lane – Rolling w/71% Climbing Lanes	1,060	9,940	18,540	18,540	18,540
4. Rural 2-lane – Rolling (PCGP)	1,600	4,200	7,200	11,400	21,000
5. Rural 2-lane – Mountainous (PCGP)	800	2,400	4,200	7,200	14,000
6. Arterial – Low Access Control (PCGP)	7,000	10,500	12,000	13,740	15,000

Source: Placer County General Plan; kdANDERSON Transportation Engineers, based upon Highway Capacity Manual, Transportation Research Board, 1985.

Table 5-3 presents the operating Levels of Service for each of these study roadways. As shown, currently all of the study roadways operate at Level of Service "C" or better.

Foresthill Road is used for tourist travel between the Auburn area, the Tahoe National Forest and the Auburn State Recreation Area. Approximately 900,000 tourists visit the Foresthill area of the Tahoe National Forest annually (Rich Johnson, Tahoe National Forest, pers. comm., June 2002). Forest Service staff also indicated that the two main routes into the National Forest (i.e.,

Foresthill Road east of Foresthill and Mosquito Ridge Road) were utilized about equally, and while the summer tourist crowd is still larger than the winter tourist crowd, the number of patrons traveling during the winter is increasing rapidly. Based on information provided by Forest Service Staff, and accounting for such factors as carpooling and weekend vs. weekday traffic, it is estimated that tourist traffic accounts for a total of 570± weekday trips on Foresthill Road between Auburn and Foresthill. In the future, tourist traffic to the Tahoe National Forest is assumed to double, which equates to a 3.5% annual growth rate over the next 20 years.

Table 5-3 Existing Daily Roadway Traffic Volumes and Levels of Service (Weekdays)

Roadway	Location	Criteria	Daily Traffic	LOS
Foresthill Rd	Foresthill Bridge to Drivers Flat	Rural w/39% climbing	6,650	C
Foresthill Rd	Drivers Flat to Spring Garden	Rural w/40% climbing	4,876	C
Foresthill Rd	Todd Valley Rd (W) to Idle Wheels Mobile Home Park	Rural w/43% climbing	5,312	C
Foresthill Rd	Idle Wheels Mobile Home Park to Michigan Bluff Rd	Arterial	796	A
Foresthill Rd	E of Michigan Bluff Rd	Arterial	481	A
McKeon-Ponderosa	S of Foresthill Rd	Rural w/out passing	1,495	B
Spring Garden Rd	N of Foresthill Rd	Rural-Mountainous	624	A
Happy Pines Dr	S of Foresthill Rd	Rural w/out passing	1,293	B
Todd Valley Rd (W)	S of Foresthill Rd	Rural w/out passing	2,663	B
Todd Valley Rd (E)	S of Foresthill Rd	Rural w/out passing	319	A
Mosquito Ridge Rd	S of Foresthill Rd	Rural-Mountainous	230	A
Yankee Jim's Rd	N of Race Track St	Rural-Mountainous	186	A
Main St	S of Foresthill Rd	Arterial	691	A
Michigan Bluff Rd	S of Foresthill Rd	Rural w/out passing	200	A
Race Track St	N of Foresthill Rd	Arterial	901	A

Source: kdANDERSON Transportation Engineers, 2003.

ALTERNATIVE TRANSPORTATION SYSTEMS

Motorized

The Consolidated Transportation Service Agency (CTSA) provides public mass transportation service in the Plan area. CTSA operates one bus daily between Foresthill and Auburn. The bus makes five scheduled stops within the community of Foresthill. The first pickup is at Forest House at 7:45 a.m., with the last pickup at the Todd's Valley Mobile Home Park at 8:05 a.m. before the bus travels to Auburn. In Auburn, the bus drops off all riders at the Elders Transfer Station. In the afternoon, the route is reversed, and the bus leaves Auburn at 3:30 p.m. and travels back to Foresthill. The cost of a bus ride is $2.50.

The Plan area is not served by freight or passenger rail service. The Plan area is not served by a public/commercial airport. The closest airports to Foresthill are the Georgetown Airport and Auburn Municipal Airport.

Non-Motorized

Non-motorized, alternative transportation includes pedestrian, equestrian, and bicycle activity. Both bikeway and pedestrian facilities within the Plan area are limited. Limited sidewalks exist in the downtown Foresthill area, and bicyclists must share the roadways with motorists. This type of transportation is the most inexpensive to provide for and has the least impact on the environment. Non-motorized transportation can foster a built environment that is more accessible, livable, and interesting because it is scaled to the pedestrian and not the automobile.

Because of the rural nature and sparse population within the Plan area, the Foresthill Divide is reliant upon automobile usage. However, there is a community trail system that encourages pedestrian, equestrian, and bicycle use within the community for purposes of travel and recreation. Many of the Forest Service trails, BLM trails, community trails, and State Recreation Area trails accommodate equestrians and mountain bikers; the Foresthill Divide Loop trail serves as an alternative mode of non-motorized transportation along both sides of Foresthill Road, although it is not continuous.

Despite the inevitable dependence on automobiles, non-motorized transportation should be nurtured within the Plan area. The proposed equestrian staging area would provide support facilities for equestrians utilizing the community trails system. This type of facility would encourage non-motorized transportation and contribute to the rural character of the Plan area. Bicycling should be encouraged as well, especially within the townsite and developed areas. Bicycling, horseback riding, and walking are efficient, inexpensive, and fun means of transportation that are consistent with the character and direction of the community.

C. GOALS AND POLICIES

Goal 5.1. **Provide for the safe and efficient movement of people and goods on the primary roadway serving the Foresthill Divide, i.e., Foresthill Road.**

Policies

5.1-1 Establish and maintain a Level of Service (LOS) of "C" or better on Foresthill Road between Auburn and the Idle Wheels Mobile Home Park and “D” or better between the Idle Wheels Mobile Home Park and east of the Foresthill Elementary School.

5.1-2 The recent improvements to Foresthill Road should be extended to Mosquito Ridge Road. Placer County should continue to pursue all appropriate sources of funding for these improvements. An interim plan for improving Foresthill Road with County resources focusing on the most dangerous sections should be developed.

5.1-3 As roadway improvements are made, seek to reduce the number of access points in developed areas on Foresthill Road and provide left-turn lanes for frequently used access points, or a two-way left turn lane for dense-access areas.

5.1-4 Proponents of new development projects should analyze the project's contribution to increased traffic on Foresthill Road and implement improvements necessary to address the increase. Mitigation of significant project-related impacts may require improvements beyond those addressed by the Placer County traffic impact mitigation fee program.

5.1-5 Road improvements along Foresthill Road should include a Class I bikeway (off-street bike trail or path which is physically separated from the roadway) between major residential areas and downtown Foresthill, i.e., currently between the Spring Garden Road and Black Hawk Road. As new residential neighborhoods are developed, the Class I bikeway should be extended to reach them. New development projects that border Foresthill Road should include the bikeway as part of their development plans. The bikeway may utilize existing road, water, power line or fire access easements where appropriate. The bikeway may be developed along the edge of the proposed improved Foresthill roadway in advance of or in conjunction with Federal, State and/or County-funded improvements.

5.1-6 A Class II bikeway (on-street bike lanes with signs, striped lane markings, and pavement legends) or Class I bikeway should be implemented along the rest of Foresthill Road between Auburn and the intersection of Sugar Pine Road.

5.1-7 Community organizations, businesses and individuals are encouraged to sponsor sections of the proposed Class I bikeway, working with Placer County, community representation (Foresthill Forum) and nearby property owners to plan and develop their section. Placer County should pursue all appropriate sources of funding for development of the bikeway.

5.1-8 The County shall post notice of any non-emergency closures of Foresthill Bridge, or any section of Foresthill Road, at least 7 days before closure. Such notices shall be placed on road signs at the Foresthill Bridge, Foresthill Road at its intersection with Lincoln Way, Lower Clementine Road and Spring Garden Road. In addition, the County shall send notices of closure to local newspapers. The County shall examine requiring community compensation for closures for non-public purposes (e.g., filming).

5.1-9 The Foresthill Road right-of-way shall be maintained according to CDF "Shaded Fuel Break" standards in order to improve sight distance and reduce collisions between wildlife and vehicles.

Goal 5.2. Provide for safe emergency access and alternative routes onto the Foresthill Divide and to provide river and canyon access for recreational purposes.

Policies

5.2-1 Regular maintenance on Ponderosa Way, Yankee Jim's Road, Iowa Hill Road, Old Foresthill Road, Mosquito Ridge Road, Lower and Upper Lake Clementine Road, Mammoth Bar Road and Driver's Flat Road shall be performed by the County. Dirt roads should be graded regularly and drainage problems corrected. Bridges should also be inspected regularly and preventive maintenance performed by Placer County. Placer County, BLM, USFS, State Parks and Recreation, CDF, and local community groups and residents should coordinate efforts and funding to maintain these roads.

5.2-2 Opportunities to improve secondary access roads with all appropriate sources of funding, including traffic mitigation fees from new development and freight traffic mitigation fees, should be pursued.

5.2-3 Long-standing public access roadways (those used by the public for 5 years or more) such as McKeon-Ponderosa Way, Nugget Drive, Power Line Road, Indian Lane and Harrison Street shall be open and maintained (inspected annually and graded as needed) to provide emergency fire and recreational access to river canyon areas and other areas on the Divide. The County shall coordinate efforts with State Parks and Recreation, BLM and CDF to maintain these roads.

Goal 5.3. Provide for efficient, safe and pleasant circulation on local and collector roads throughout the community.

Policies

5.3-1 New development projects should incorporate collector or arterial road segments that connect to and take advantage of existing access to existing neighborhoods, if possible, and minimize the impact of egress and congestion on Foresthill Road.

5.3-2 Arterial and collector roads shall be protected from unrestricted driveway access in order to enhance secondary circulation. Possible candidates include Spring Garden Road, Happy Pines Drive, Cold Springs Road, Red Rock Drive, McKeon-Ponderosa Way, Todd Valley Road, Thomas Street, Power Line Road, Yankee Jim's Road and Michigan Bluff Road. These roads should have bike lanes or adjacent trails and safe bus stops that do not impede traffic.

5.3-3 Road easements in new developments shall include space for at least a five-foot multi-purpose roadside trail, or equivalent off-road trail network to enable children, equestrians, bicyclists, and pedestrians to safely circulate throughout the neighborhood.

5.3-4 Install traffic calming measures as appropriate within the Core Area to reduce speeds and create a bicycle - and pedestrian-friendly environment.

Goal 5.4. Enhance circulation within the Core Area.

Policies

5.4-1 The Streetscape Master Plan that has been developed should guide new development and enhancement efforts within this area.

5.4-2 New and existing businesses shall provide adequate parking for the patrons of their facilities in compliance with the Foresthill Mixed-Use Development Standards. The visual impact of parking lots shall be considered during design review.

5.4-3 The Core Area shall be a "pedestrian friendly" zone. The County right-of-way along Foresthill Road, Main Street and Soap Street shall provide space for at least a five-foot path on properties adjacent to roadways for pedestrians. This path may be such that it connects to the path on adjacent properties to provide a continuous route.

5.4-4 The Western States Trail through historic downtown is important as a historical asset and continues to provide circulation for equestrians, bicycles and pedestrians. This trail shall be preserved and incorporated into plans for enhancing circulation through Foresthill.

5.4-5 A bike and pedestrian path that connects Memorial Park to the Elementary School via Harrison and Church Streets and to the site for the proposed high school via Race Track Street should be constructed to provide safe circulation between these popular destinations.

Goal 5.5. Encourage public and alternative transportation to alleviate pollution and congestion.

Policies

5.5-1 Explore the possibility of expanding the transport of students to school to include the transport of the general public to the downtown district and to Auburn, possibly contracting out the transport to a private company.

5.5-2 New residential developments shall provide designated sites that can be used for transit stops, carpool lots and other centralized facilities.

5.5-3 New developments of 100 residential units or more shall provide public carpool parking facilities. These facilities should also be utilized for overflow parking and staging areas for community events.

5.5-4 Require developments of 100 residential units or more to provide sheltered public transit stops, with turnouts where appropriate. Consider development of turnouts in existing developed areas where roadway improvements are made or as deemed necessary for traffic flow and public safety.

5.5-5 Require that land use patterns and transportation systems in new growth areas be designed to provide residents and employees with the opportunity to accomplish many of their trips by walking, bicycling and using public transit.

5.5-6 Encourage opportunities in home-based businesses, telecommuting and local satellite offices, and more local employment opportunities as measures to reduce traffic. Investment in high-speed telephone, cable and satellite electronic transmission facilities should be encouraged, consistent with adopted design guidelines and land use limitations. Public education programs which focus on working from home also should be offered.

Goal 5.6. Maintain a balanced freight transportation system to provide for the safe and efficient movement of goods and services while minimizing impact on commute traffic.

Policies

5.6-1 If traffic signals become necessary on Foresthill Road, utilize control mechanisms that minimize the delay of through traffic, especially during non-commute hours.

5.6-2 Support Federal and State efforts to levy user charges which adequately mitigate truck traffic impacts to roadways and encourage a proportionate share to be returned for use on Divide roadways.

Goal 5.7. Provide emergency and public access to public lands.

Policies

5.7-1 New development projects which border public land shall provide emergency or public access to that public land utilizing existing roads or trails if possible. Access may be located along property lines. At least one access point shall be provided for each 5,000 feet of shared borders between private and public lands.

Goal 5.8. Reduce congestion at the intersection of Foresthill Road/Lincoln Way/I-80 Overcrossing intersection.

Policies

5.8-1 New development shall be evaluated as to its impact on the intersection.

Goal 5.9. Maintain a safe traffic speed in the Core Area.

Policies

5.9-1 The County shall explore and implement measures to control traffic speed on Foresthill Road in the Core Area, with the goal of maintaining the approved design speed in the area.

D. IMPLEMENTATION

1. Review development projects for compliance with the goals and policies of the Transportation and Circulation Element and throughout the FDCP, including reduction of access points, parking lot standards, bikeways and pedestrian trails, and transit stops.

   Responsible Agency/Department: Land Development Departments/Department of Public Works/ Foresthill Forum (MAC)/Planning Commission/Board of Supervisors
   Time Frame: Ongoing
   Funding: Application Fees

2. Coordinate transportation planning with Placer County Transportation Planning Agency, adjacent jurisdictions and Caltrans.

   Responsible Agency/Department: Department of Public Works
   Time Frame: Ongoing
   Funding: General Fund/Road Fund

3. Coordinate with State and Federal agencies and the Placer County Transportation Planning Agency to obtain funding for planned FDCP roadway and bikeway improvements and road and bridge maintenance, including identification of new funding sources.

   Responsible Agency/Department: Department of Public Works/PCTPA
   Time Frame: Ongoing
   Funding: Road Fund/Grants

4. Allocate capital improvement funds to planned FDCP roadway and bikeway improvements and road and bridge maintenance projects.

   Responsible Agency/Department: Board of Supervisors/County Executive/Department of Public Works
   Time Frame: Ongoing throughout the planning period
   Funding: Road Fund

5. The County should prepare a capital improvement plan (CIP) or area facilities plan for the FDCP and update it annually, allocating capital funds to the FDCP area to construct and improve roadways and bikeways in accordance with the FDCP.

   Responsible Agency/Department: County Executive/Department of Public Works
   Time Frame: Ongoing throughout the planning period
   Funding: General Fund/Road Fund/Grants

6. The County shall continue to require developers to pay their fair share of roadway and bikeway improvements within the Plan area necessitated by new development.

   Responsible Agency/Department: Department of Public Works
   Time Frame: Ongoing
   Funding: Application fees, developers

7. The County shall continue to collect traffic impact mitigation fees to pay for new and improved roadway facilities in the FDCP area.

   Responsible Agency/Department: Department of Public Works
   Time Frame: Ongoing

Funding: Traffic Impact Mitigation Fees

8. When new State or County road projects are planned, pedestrian and bicycle trail/path facilities shall be incorporated into the project to the extent feasible.

Responsible Agency/Department: Caltrans/Department of Public Works
Time Frame: Ongoing
Funding: Road Fund

9. During environmental review of private development projects and public works projects, traffic impact studies shall be prepared to analyze project effects on roadway Level of Service and prescribe mitigation measures as needed to maintain Level of Service standards established in the FDCP.

Responsible Agency/Department: Department of Public Works/Planning Department
Time Frame: Ongoing
Funding: Application Fees/General Fund or other funding sources (for public works projects)

10. Develop an interim plan for improving Foresthill Road to Mosquito Ridge Road, focusing on the most dangerous sections.

Responsible Agency/Department: Department of Public Works
Time Frame: Fiscal Year 2003-2004
Funding: Road Fund

11. The Placer County Bikeway Master Plan shall be amended to be consistent with Policies V.1-5 and V.1-6 above. The Plan only mentions the section of Foresthill Road from Lincoln Way to Clementine Road and plans for that to be a Class III bikeway (on-street bike route marked by signs and shared with motor vehicles and pedestrians with optional edge lines painted on the pavement). The priority ranking specified is level 1, which is the highest priority. Because of the newly reconstructed Foresthill Road, and because the community survey showed very strong support for trails, the goal and priority for Foresthill Road described in the Master Plan should be changed.

Responsible Agency/Department: Planning Department/Department of Public Works
Time Frame: Fiscal Year 2003-2004
Funding: General Fund

12. Revise road improvement and right-of-way dedication requirements for land development projects within the Plan area.

Responsible Agency/Department: Department of Public Works
Time Frame: Fiscal Year 2003-2004
Funding: Road Fund

13. Identify and implement appropriate traffic calming measures within the Core Area.

Responsible Agency/Department: Department of Public Works/Foresthill Forum (MAC)
Time Frame: Fiscal Year 2004-2005 and ongoing
Funding: Road Fund

14. Study and consider adoption of fees to compensate the Foresthill community for closure of Foresthill Road for non-public purposes (examples of compensation include payments to the affected fire district, safety club, emergency services, etc.)

Responsible Agency/Department: County Executive/Board of Supervisors
Time Frame: Fiscal Year 2004-2005

Funding: Compensation Fees

I. FUTURE CIRCULATION SYSTEM

The future circulation system for the Foresthill Divide Community Plan area is comprised of both existing roadways and new streets. The existing roadways identified in the Plan include: Foresthill Road, Spring Garden Road, Yankee Jim's Road, Mosquito Ridge Road, Iowa Hill Road, McKeon-Ponderosa Way, Happy Pines Drive, Todd's Valley Road, Race Track Street, Main Street, Michigan Bluff Road, and North Fork Ponderosa Way. These existing roadways are described above in Section B, Existing Transportation System.

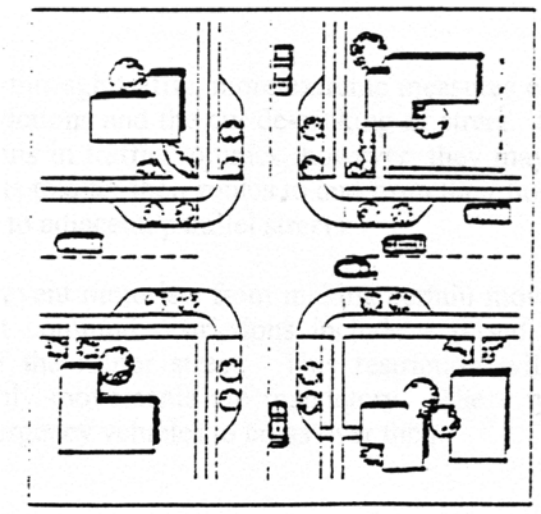
The 1996 Transportation Improvement Plan for Placer County identifies two improvements in the Plan area, both of which are located on Foresthill Road. One improvement is the widening and realignment of Foresthill Road from 2.5 miles west of Moshiron to Madrone. The second project is acquisition of additional right-of-way from Drivers Flat Road to Pond Avenue. The cost of these improvements is $11.7 million, which is included in the County's most recent Capital Improvement Program.

The balance of the Community Plan circulation system is to be comprised of three new/upgraded facilities that will link the existing circulation system to existing/future development. Descriptions of each of these facilities are presented below. The future roadway extensions, in addition to providing linkages within the Plan area, will provide alternative parallel routes to Foresthill Road, decreasing traffic volumes on Foresthill Road within the Core Area. Some of the proposed roadway alignments will require acquisition of right-of-way by the County. The future circulation system is also presented in map form, as Figure V-1 of the Foresthill Divide Community Plan.

Power Line Road. Power Line Road, which is currently unimproved, is to be upgraded to a 32-foot rural secondary road along its current alignment. This facility will extend from Spring Garden Road in the west to ultimately connect with Foresthill Road in the east in the vicinity of the new high school site.

Yankee Jim's Road connection to proposed new high school site. A new connection is proposed to link Yankee Jim's Road to the new high school site. The exact alignment of this new connection has not been determined.

Patent Road extension. Patent Road will be extended from its current terminus just east of Todd's Valley Road to Mosquito Ridge Road in the east. While the exact alignment of this new facility has not been determined, it will likely be located just south of the planned development in the area, thereby forming a new east-west connection that parallels Foresthill Road to the south. The connection with Mosquito Ridge Road will most likely be located very close to Foresthill Road based on existing topography. In addition, the existing stretch of Todd's Valley Road from Patent Road westward to its existing upgraded section that lies just east of Green Ridge Drive is to be upgraded.



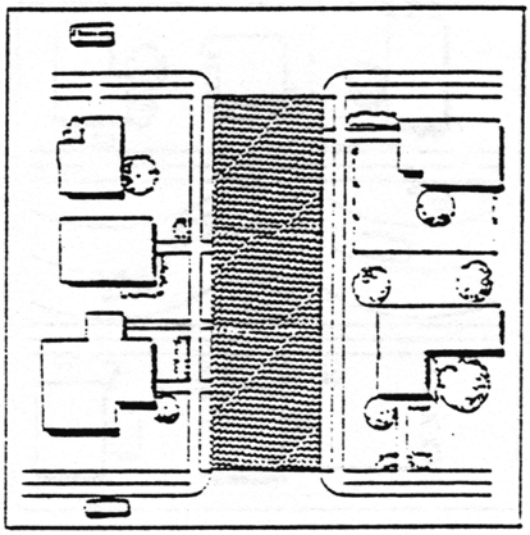
Neckdowns

2. TRAFFIC CALMING MEASURES

The Foresthill Divide Community Plan incorporates policies that promote the use of traffic calming measures in the Core Area. Traffic calming measures will assist in the implementation of the Foresthill Community Design Guidelines, which focus on making a comfortable and safe environment for pedestrians, providing safe and convenient pedestrian connections, facilitating pedestrian circulation within and between commercial sites and nearby residential areas, and creating a "sense of arrival" at commercial entries. Three general types of traffic calming measures can be used to control speed and inhibit cut-through traffic. These can be characterized as vertical measures, horizontal measures and narrowings. Vertical controls use vertical acceleration forces to reduce vehicle speed. Horizontal measures use lateral acceleration forces to inhibit speed, while narrowings use the perceptive sense of enclosure to discourage speeding and inhibit through traffic. Aesthetics play an important role in the acceptance of traffic calming measures.

The use of traffic calming measures in the Core Area may pose difficulties for through truck traffic on Foresthill Road. Some of the traffic calming measures described below may be incompatible with the use of snowplows.

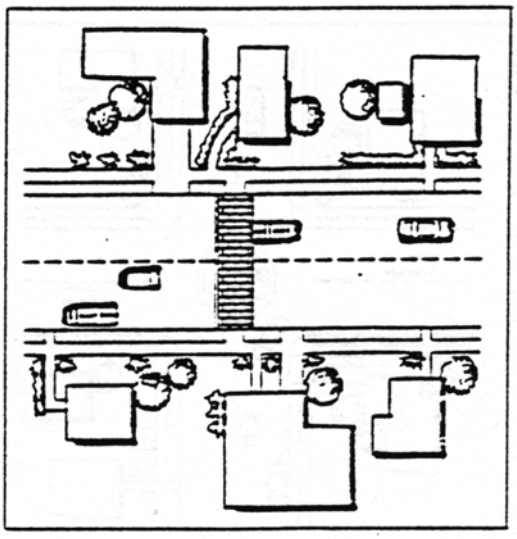
Vertical Controls. The most common form of vertical control is the speed hump or undulations. They are the most common form of traffic calming and are typically the least expensive to install and maintain, although they are not suitable in areas serviced by snowplows. Other types of vertical controls include raised intersections, raised crosswalks, and textured pavements.



Textured Pavements

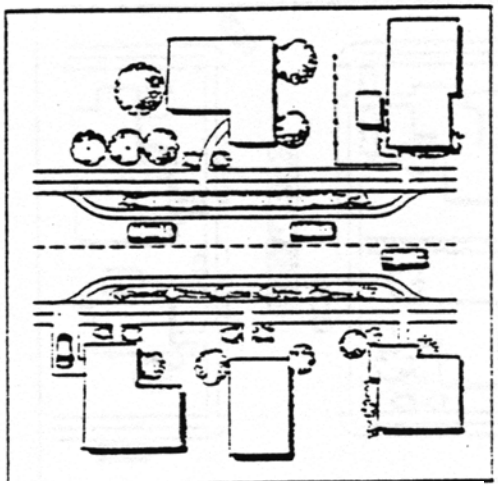
Horizontal Controls. Horizontal measures achieve their desired results by forcing drivers around horizontal curves and blocking long views of the road ahead. The most common types of horizontal measures are traffic circles, chicanes, realigned intersections, lateral shifts, single lane slow point, two lane angled slow point, mid block road closures, and traffic islands. Roundabouts (traffic circles) are an alternative to traffic signals, and often minimize traffic delays resulting from signalization. Not all intersections are good candidates for signalization.

Narrowings. Roadway narrowings are usually accomplished by plantings and other vertical elements to draw attention to the constriction. These narrowings include chokers, center island channelization, gateways and neckdowns. Bicycle lanes can provide narrowing of a roadway by reallocating the roadway width. They can assist in narrowing wide streets by reducing the through lane width to standard 12-foot wide lanes or narrower 10 or 11-foot lanes. Bicycle lanes alone may provide some relief from speeding vehicles.



Raised Crosswalks

Combination of Measures. The use of traffic calming measures often requires an approach that utilizes a variety of measures to reach the most effective reduction in speed and/or traffic volumes. Many communities have combined treatments at select locations, while other approaches include combinations of measures at different locations along the same street. Some of the measures that have been combined in communities include gateways with center islands, chokers and speed humps, center islands and chokers, traffic circles and neckdowns, and raised crosswalks with chokers. The use of multiple measures should be considered, depending on the goals of the project. For example, if the goal along a neighborhood street is to support access to a local park, the use of a choker may not provide reduced speeds that will encourage pedestrians to cross the street. The use of hybrid measures, including multiple narrowings and deflections, typically provides the needed measures to effect the desired changes.



Chokers

Signings and Markings. Signings and markings should be placed in advance of and within the traffic calming measures, using conventions identified in the Manual of Uniform Traffic Control Devices (MUTCD). These include warning signs in advance of the measures, regulatory warning signs at the measures themselves, as appropriate, markers delineating island approaches, and pavement markings to guide vehicles along the desired travel paths.

Other Considerations. Emergency vehicle response is a key element in determining the appropriateness of varying traffic calming measures. Traffic calming measures, if effective, will increase the response time for emergency vehicles. A balance of reducing speeds while maintaining prompt emergency response needs to be considered when developing traffic calming measures. The Sheriff's Department and the affected fire district should be involved in potential solutions.

Traffic calming features need to be designed to accommodate public works facilities and maintenance of local streets. Calming measures such as chokers can impact the drainage along a street if not installed properly. Measures need to be designed to assure that utilities will not be affected by installation of traffic calming measures, and driveway locations need to be considered to minimize the impact for residents of the area.

Successful implementation of any traffic calming measures includes collaboration between County officials and staff and the community. Neighborhood and community input during the initial stage of analysis and design is critical to the success of the traffic calming program.